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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/783,850	02/20/2004	William D. Johnson	P-6238-04-04	7659
23983	7590	08/24/2005		
MILLS LAW FIRM, PLLC P.O BOX 1245 Cary, NC 27512-1245			EXAMINER BARNEY, SETH E	
			ART UNIT 3752	PAPER NUMBER

DATE MAILED: 08/24/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

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<b>Office Action Summary</b>	Application No. 10/783,850	Applicant(s) JOHNSON, WILLIAM D.	
	Examiner Seth Barney	Art Unit 3752	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 08 June 2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:  
  
The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
2. Claims 2 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
3. Claim 2 recites the limitation "frontally" in line 4 of the claim. This term is not directly found in the specification.

### ***Claim Objections***

4. Claim 5 is objected to because of the following informalities: Line 2 of the claim recites "for movement a horizontal longitudinal axis". It is apparent that "a" should be -- about--. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 2-4 and 13 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 5,533,676 to Conley.

Regarding claim 2, Conley discloses a vehicle spraying device having:

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-a drive unit including an engine (12) operatively connected to a pair of laterally spaced manually steerable drive wheels (20).

-a fluid reservoir (14) for liquid media

- pump (44) means for delivering the liquid media to liquid delivery line (52). See Figure 1.

-frame means frontally connected to the drive unit and nozzle means fluidly connected with delivery lines and transversely carried on the frame means for dispensing the liquid media. Conley expressly states that the vehicle spraying device can be converted to walk-behind apparatus. See column 4 lines 1-9. Conley states that the device can be modified to a walk behind sprayer and the changes necessary are readily done by one skilled in the art. This would include mounting the sprayers in front such that the operator is not sprayed during use.

-control means (48) for the liquid delivery lines carried by the drive unit, the control means being manually operative to selectively deliver the liquid media to the nozzle means, the nozzle means including a first set of laterally spaced nozzles carried on the frame means with the outermost being within the forward later vision of the operator.

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Regarding claim 3, Conley discloses a pair of lateral spray arms extending laterally outwards from the sides of the frame and include nozzles (54) thereon. See Figure 3.

Regarding claim 4, the control means are operative to selectively fluidly connect the sets of nozzles to the pump means. See column 3 lines 50 to 52.

Regarding claim 13, the tank means is cylindrical. See Figure 1.

***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,533,676 to Conley in view of U.S. Patent No. 6,502,771 to Wyne and U.S. Patent No. 5,215,255 to Kubacak et. al.

Conley discloses a vehicle spraying device having:

- an engine (12) operatively connected to a pair of laterally spaced manually steerable drive wheels (20).

- rear operable control handle assembly (18).

- a generally rectangular metal frame connected at a rear end of the front end of the drive unit having a pair of laterally spaced wheel assemblies including pivotal wheels (not labeled) at the front end. See Figure 1.

- sprayer arms (50) mounted on the opposite sides of the frame and extending outwardly therefrom. See Figure 2.

- the arms moveable between a horizontal spray position and a vertical stowed position. See column 3 lines 42 to 50.

- a transversely disposed fuel tank (42) mounted on top of the frame.

- an electric pump (44) mounted on the tank having an inlet in the tank for removing liquid from the tank. The pump having an outlet fluidly connected with an inlet valve means carried on the control handle (48). See Figure 1.

- a first fluid conduit (52) conduit having an inlet connected with a first outlet on the valve means and a distal end extending transversally across the frame. See Figure 3.

- a first plurality of fluid dispensing nozzles (54) on the distal end of the first fluid conduit. See Figure 3.

- a second fluid conduit (52) having an inlet fluidly connected with a second outlet on the valve means and having a branch conduits extending to the spray arms. See Figure 3.

- fluid dispensing nozzles (54) on the branch conduits, the valve means being manually operative to block flow to the fluid conduits in a first position and to selectively deliver fluid to the conduits in a secondary position. See column 3 lines 50 to 52.

- a shield for blocking the fertilizer. See column 3 lines 18-20.

Furthermore, Conley discloses that the spraying device could be of the walk behind type rather than a riding type. See column 4 lines 3 to 9.

Conley does not disclose the use of the shield on the other end of the device to block the spraying fluid. It is commonly known in the art to use spray shields to direct spray of fluid as demonstrated by the shield (23) of Kubacak. It would have been obvious to one having ordinary skill in the art to modify the spraying device with the shield on the spray boom side of the device in order to direct the spray to desired areas.

While Conley does disclose that the spraying device may be a walk-behind device, he does not expressly disclose that it is a zero turn radius walk-behind device. Wyne discloses a typical spraying device that can be walk-behind and has a zero-turn radius. See column 4 lines 48 to 67. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the walk-behind spraying device of Conley with the zero turn radius structure of Wyne in order to provide a highly desirable control feature. See column 2 lines 64 to 67.

9. Claims 5-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,533,676 to Conley as applied to claims 1-4 above, and further in view of U.S. Patent No. 6,422,483 to Yocom et al.

Regarding claim 5, Conley discloses all of the limitations of the claims except for the spray arms being pivotally connected to the frame means for movement about a horizontal longitudinal axis between a horizontal position and a vertical position. Yocom shows this orientation in Figure 8. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the pivotal booms of Conley with the pivotal orientation of Yocom in order to make the device more compact.

Regarding claim 6, Conley discloses all of the limitation set forth in the claim except for hinge means. Conley discloses pivotable booms, but does not expressly disclose that they have hinges with biased springs. Yocom discloses a liquid spraying tractor having a boom with hinges that are spring biased (88). See column 4, lines 51 to 54 and Figures 2A-2B, 7 and 8. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the vehicle spraying device of Conley with the hinge means and spring of Yocom in order to easily pivot the boom for storage and passage into smaller areas, while simultaneously allowing the boom to easily return to the other position by the spring bias.

Regarding claim 7, Conley does not disclose support means carried on the side of the frame for releasably maintaining the spray arms. Yocom discloses support means (110,112) attached to the frame for supporting the boom arms in position during operation. See column 4, lines 62 to 65. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the vehicle spraying device of Conley with the supports of Yocom in order to retain the boom arms in position during operation.

Regarding claim 8, the control means can be set in a first conditions such all flow is blocked to all nozzles (off or to the hand sprayer), a second condition where a first set of nozzles receives flow, and a third condition in which a second set of nozzles receive flow. See column 3 lines 50 to 60.



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Regarding claim 9, if all of the valves (48) and spray gun (46) were closed, the liquid flow would travel in a recirculation path between the pump (44) and the reservoir as shown in Figure 3.

10. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,533,676 to Conley and U.S. Patent No. 6,422,483 to Yocom et al. as applied to claims 2-9 above, and further in view of U.S. Patent No. 6,502,771 to Wyne.

While Conley does disclose that the spraying device may be a walk-behind device, he does not expressly disclose that it is a zero turn radius walk-behind device. Wyne discloses a typical spraying device that can be walk-behind and has a zero-turn radius. See column 4 lines 48 to 67. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the walk-behind spraying device of Conley with the zero turn radius structure of Wyne in order to provide a highly desirable control feature. See column 2 lines 64 to 67.

11. Claims 11 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,533,676 as applied to claim 2 above, and further in view of U.S. Patent No. 5,215,255 to Kubacak et. al.

Conley does not disclose the use of the shield on the other end of the device to block the spraying fluid. It is commonly known in the art to use spray shields to direct spray of fluid as demonstrated by the flexible shield (23) of Kubacak. It would have been obvious to one having ordinary skill in the art to modify the spraying device with the shield on the spray boom side of the device in order to direct the spray to desired areas.

***Response to Arguments***

12. Applicant's arguments, see page 7, lines 13-17, filed 6/8/05, with respect to the spray arms being pivotally connected for movement about a horizontal axis between a horizontal and vertical position have been fully considered and are persuasive. Claims 1 and 5 have been newly rejected.

13. Applicant's arguments, see page 7 line 20 to page 8 line 4, filed 6/8/05, with respect to the spray shield have been fully considered and are persuasive. Claims 1, 11, and 12 have been newly rejected.

14. Applicant's arguments filed 6/8/05 in regards to the Conley reference not showing a mounted sprayer on a front frame (see page 6 lines 19 to 23) have been fully considered but they are not persuasive. As disclosed in Conley in column 4, lines 1 to 14, the device can be modified to a walk behind sprayer and the changes necessary are readily done by one skilled in the art. This would include mounting the sprayers in front such that the operator is not sprayed during use. Therefore, the rejections of claims 2-4 remain.

***Conclusion***

15. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. U.S. Patent No. 5,765,754 to Emilsson discloses a spray shield (9). U.S. Patent No. 5,662,267 to Hulls discloses a spray shield.

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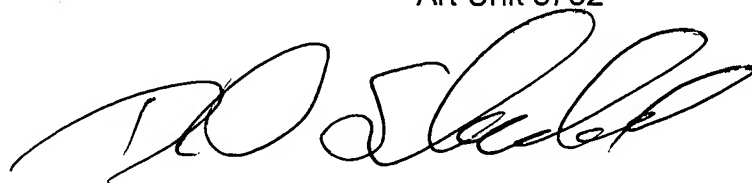
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Seth Barney whose telephone number is (571)272-4896. The examiner can normally be reached on 7:30am-5:00pm (Mon-Fri).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dave Scherbel can be reached on (571)272-4919. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Seth Barney  
Examiner  
Art Unit 3752

sb

A handwritten signature in black ink, appearing to read 'D. Scherbel', is written over a horizontal line.

**David A. Scherbel**  
**Supervisory Patent Examiner**  
**Group 3700**